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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/754,544	01/12/2004	Michael Abert	Q78994	9266
23373 7590 06/28/2007 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER GRAY, CHRISTOPHER B	
			ART UNIT 2609	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/754,544

Applicant(s)

ABERT, MICHAEL

Examiner

Christopher Gray

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 10 is/are rejected.
- 7) ☐ Claim(s) 7-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12 Jan. 2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linebarger et al (US 7,035,663 B1) in view of Watanabe et al (4,147,894), and Goodman et al (US 6,958,995 B1). Linebarger teaches the limitations of a first and second protocol, having respective frequency ranges, signal levels for each protocol and the protocols being transmitted in parallel. Linebarger states, "The system comprises an incumbent system configured to format a first signal according to an incumbent protocol at a first transmission level and to generate the formatted first signal as an incumbent signal. The system includes an overlay system configured to format a second signal according to an overlay protocol at a

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second transmission level and to generate the formatted second signal as an overlay signal. The system also has a controller configured to overlay the incumbent signal with the overlay signal to create the wireless complementary signal and to transmit the wireless complementary signal. The system further includes a MAC entity configured to determine the first transmission level for the incumbent signal and the second transmission level for the overlay signal. The first transmission level is complementary to the second transmission level" (col. 1 lines 53; col. 2 lines 1-10), which refers to the instant invention's limitations of a first and second protocol being transmitted in parallel (complementary) and each protocol having its own respective signal level. Linebarger further states in claim 3, "The system of claim 1 wherein the incumbent system comprises a modulator configured to modulate the first signal according to a protocol used for a narrowband signal", and in claim 5, "The system of claim 1 wherein the overlay system comprises a modulator configured to modulate the second signal according to a protocol used for a broadband signal", which refers to the instant invention's claim that the first and second protocols each have respective frequency ranges.

Linebarger does not teach each protocol having respective signal sequences; however, Watanabe, which is in the same field of endeavor, teaches two different protocols having two different sequences providing a faster transmission rate in claim 1, "In a time division multiplex communication device for carrying out conversion between a preselected portion of each of a plurality of first signal sequences of a first rate, N in number, and a prescribed portion of

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each of a plurality of second signal sequences of a second rate, M in number, in response to both first clock pulse sequences corresponding to respective ones of said first signal sequences and to second clock pulse sequences corresponding to respective ones of said second signal sequences, said first rate being lower than said second rate, the number N being greater than the number M, the preselected portion of a pertinent one of said first signal sequences being an expansion with respect to time of the prescribed portion of a relevant one of said second signal sequences, the prescribed portions of said second signal sequences being determined as a function of the timing of said second clock pulse sequences, a combination which comprises: a plurality of first device terminals (21) equal in number to the number of said plurality of first signal sequences, each of said first device terminals for receiving a respective one of said first signal sequences; a plurality of second device terminals (22) equal in number to the number of said plurality of first signal sequences, each of said second device terminals for receiving a respective one of said second signal sequences", which refers to the instant invention's claim of transmitting the first and second data, having a first and a second signal sequence, respectively. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include several different protocols transmitting data at different frequencies, signal levels, and sequences in a data transmission system to provide efficient data transmissions with faster and dependable succession.

The references, as applied above teach, all the limitations except for the first switching level differing from the second switching level; however, Goodman, which is in the same field of endeavor, teaches, with reference to Figure 1, "In FIG. 1A, the high capacity fine grain switch 1 supports two different levels of switching granularity, a first switching level ("CL") which provides a coarse granularity switching operation and a second, outer, switching level ("FL") which provides a finer granularity switching operation than the first layer and which determines the finest bandwidth of traffic which the high capacity fine grain switch is able to switch"(col. 7 lines 15-24), which refers to the two different switching levels for the first and second protocols. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to include transmitting data in parallel in atleast a first protocol and second protocol, having, based off the first protocol and second protocol, respectively, a first and second frequency range, a first and second signal sequence, a first and second signal level, and a first switching level that is different from the second switching level, to provide a successful data transmission in a date transmission system according to different protocols to make sure the right data is being transmitted with and received according to its respective protocol.

4. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Linebarger et al (US 7,035,663 B1) in view of Watanabe et al (4,147,894), and Goodman et al (US 6958995 B1), as applied to claim 1 above, and further in view of Brolin et al (US 2002/0097745 A1) and Torsner (US 2007/008990 A1).

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Regarding claim 2, the references as applied to claim 1 above teach all the limitations except the first data of the first protocol being transmitted asynchronously with an acknowledgment signal; however, Brolin, which is in the same field of endeavor, teaches in claim 2, "The service unit of claim 1, wherein said first communication protocol is asynchronous transfer mode", which refers to the first protocol data being transmitted asynchronously. Brolin fails to teach the acknowledgment of the asynchronous data transmission, however, Torsner, which is in the same field of endeavor, teaches in claim 28, "A radio base station, comprising: receive means, for receiving one or more first protocol data units, a protocol entity, for processing first protocol data units, and transmit means, for transmitting acknowledgments and for forwarding of first protocol data units", which refers the first protocol data having an acknowledgment transmitted during the asynchronous transmission. It would have been obvious to one of ordinary skill in art at the time the invention was made to include asynchronously transmitting the first protocol data with an acknowledgment, to insure the data was transmitted and received properly.

Regarding claim 3, the references as applied above to claim 1, teach all of the limitations except for the second protocol data being transmitted synchronously and having an acknowledgment transmitted with it as well; however, Brolin, further teaches in claim 3, "The service unit of claim 2, wherein said second communication protocol is synchronous transfer mode", which refers to the instant invention's claim that the second protocol data is transmitted synchronously. Though Brolin does not teach the acknowledgment being

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transmitted, Torsner further teaches in claim 22, "The radio network controller according to claim 21, further comprising: processing means, and transmit means, the processing means being arranged to verify second protocol data units according to an error detecting code and the transmit means transmitting positive or negative acknowledgments depending on whether or not the second protocol data unit is detected to be erroneous", which refers to the instant invention's claim that an acknowledgment is transmitted with the second protocol data transmission. It would have been obvious to one of ordinary skill in art at the time the invention was made to include synchronously transmitting the second protocol data with an acknowledgment, to insure the data was transmitted and received properly.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linebarger et al (US 7,035,663 B1) in view of Watanabe et al (4,147,894), and Goodman et al (US 6958995 B1), as applied to claim 1 above, and further in view of Beach (US 2001/0055283 A1). The references, as applied to claim 1 above, teach all the limitations except the second protocol data is provide with security data, which is referred to by the applicant as being either cyclic block check, parity check, or cyclic redundancy check; however, Beach, which is in the same field of endeavor, teaches in claim 24, "A system as specified in claim 22 wherein said second program operates said RF port data processor to perform second wireless data communications functions, including cyclic redundancy check functions", which refers to the instant invention's claim of the second protocol

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data being provided with security data. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include transmitting the data with security data to make sure the data was not repeated and was received properly.

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linebarger et al (US 7,035,663 B1) in view of Watanabe et al (4,147,894), and Goodman et al (US 6,958,995 B1), as applied to claim 1 above, and further in view of Nowlin (US 2004/0203367 A1). The references, as applied to claim 1 above teach all the limitations except a filter being on the reception end and where atleast one filter is associated respectively to the first protocol and second protocol; however, Nowlin, which is in the same field of endeavor, teaches, with reference to Figure 7, "Driver layer 730 includes co-existence filter 740, buffer 745, buffer 755, driver 750 and driver 760. Co-existence filter 740 receives and transmits data to applications 715 and applications 725, and thereby has the ability to monitor throughput and efficiency in the first protocol and second protocol data paths. Co-existence filter 740 provides second protocol data to second protocol buffer 755 and first protocol data to first protocol buffer 745. Moreover, co-existence filter 740 controls both buffer 745 and buffer 755, allowing for regulation of data input and output from both buffers"([0038]), which refers to the instant invention's claim of the a filter being associated with the first and second protocols respectively. It would have been obvious to one of

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ordinary skill in the art at the time the invention was made to include a filter to insure the data being received is properly transmitted and understood.

Allowable Subject Matter

7. Claims 7-9 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Gray whose telephone number is (571) 270-1823. The examiner can normally be reached on Monday-Friday 7:30am - 5:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Garber can be reached on (571) 570-1202. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CBG


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SUPERVISORY PATENT EXAMINER